

REMARKS

Claims 1-21 continue to be the pending claims in the application. Reconsideration of the application in light of the remarks which follow is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 1-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahluwalia (U.S. Patent No. 5,965,257) in view of Langer (U.S. Patent No. 4,600,634).

The Examiner contends that Ahluwalia discloses an article comprising a substrate having an ionic charge which is coated with a coating having essentially the same ionic charge, wherein the coating consists of a filler material and a binder material. The Examiner notes that the substrate is preferably fiberglass and the filler is selected from fly ash, charged calcium carbonate, and ceramic microspheres. The Examiner also notes that the binder used comprises an acrylic latex, specifically Hycar 2679, which contains synthetic soap, that the Examiner contends can be equated with surface active agents or surfactants. The Examiner then contends that because a surfactant is present in Ahluwalia's composition, surfactant-generated microcells would also be present in the material. The Examiner concedes that Ahluwalia does not teach that a metallic component is adhered to the coated substrate on one or both sides. The Examiner alleges that Langer discloses flexible fibrous endothermic sheet materials for fire protection wherein a backing comprising an aluminum foil is added to the backing of the sheet material to give an added degree of strength to the sheet material. The Examiner then contends that it would have been obvious to have used Langer's aluminum sheet to one or both sides of the coated substrate of Ahluwalia.

The Claimed Invention

Claim 1 relates to a composite material comprising a first layer which comprises a surfactant component, surfactant-generated microcells, a filler component and a binder

component and a second layer comprising a metallic component adhered to the first layer.

Claim 2 covers a composite material comprising a substrate, a first layer adhered to the substrate to provide a coated substrate, and a second layer adhered to the coated substrate, wherein the first layer comprises a surfactant component, surfactant-generated microcells, a filler component and a binder component, and wherein the second layer comprises a metallic component. Claims 3-21 are dependent on claim 1 or claim 2 or both claims.

The Prior Art

Ahluwalia teaches a structural article comprising a substrate having an ionic charge coated with a coating having essentially the same ionic charge wherein said coating consists essentially of a filler material and a binder material and wherein said binder material bonds the filler material together and to the substrate and wherein said coating does not bleed through said substrate. By coating the substrate with a coating having essentially the same ionic charge, a zero bleed through product may be produced without a need for a blowing step. *See Ahluwalia col. 2, lines 3-6.* The filler material taught by Ahluwalia is selected from the group consisting of fly ash, calcium carbonate, ceramic microspheres and mixtures thereof. *See Ahluwalia col. 9, lines 58-60.* The binder comprises an acrylic latex, specifically Hycar 2679. *See Ahluwalia col. 3, lines 5-9.* Hycar 2679 polymer emulsion contains synthetic soap, sometimes known as surfactants. *See Ahluwalia col. 7, lines 16-19.* Ahluwalia also teaches the use of a defoaming agent. Ahluwalia Col. 2, Table I.

Langer teaches a non-intumescent, non-char forming, endothermic, essentially inorganic, flexible, fire-protective sheet material. The composition of the flexible sheet comprises an inorganic fiber, an organic polymer binder, and an inorganic endothermic filler wherein the weight ratio of organic to inorganic constituents is less than about 0.10 and wherein the weight ratio of the inorganic endothermic filler to the inorganic fiber is in the range of about 0.5 to 50. A backing, preferably aluminum foil, may be added to the sheet

material to provide strength. *See* Langer col. 4, lines 8-15.

There is No *Prima Facie* Case of Obviousness

Ahluwalia and Langer do not support a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the combined references must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and must not be based on the Applicants disclosure. *In re Vaeck*, 947 F2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991); MPEP § 2142.

In this case, the combination of Ahluwalia and Langer does not teach or suggest all the claimed limitations. In the Office Action, the Examiner asserts that because a surfactant is present in Ahluwalia's composition, surfactant-generated microcells would also be present in the material. Although the section relied upon by the Examiner in Example II indicates that Hycar 2679 contains synthetic soap, it does not teach that the coating includes surfactant-generated microcells. Even if the presence of synthetic soap indicated the presence of surfactant-generated microcells, Ahluwalia teaches away from surfactant-generated microcells by including defoaming agents. *See* Ahluwalia, col. 2, Table I. A prior art reference must be considered in its entirety, including portions that teach away from the claimed invention. See MPEP §2141.02, see also *W.L. Gore & Associate, Inc. V. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q 303 (Fed. Cir. 1983), cert denied 469 U.S. 851 (1984). It is not appropriate to choose only the desired teaching and not that which teaches away. Example II teaches the use of a defoaming agent to avoid the production of foam when rapid mixing issued. *See* Ahluwalia,

col. 6, lines 28-31. Accordingly, Ahluwalia teaches away from a coating that includes surfactant-generated microcells. Furthermore, Langer does not remedy the deficiencies in Ahluwalia.

Also in this case, there is no suggestion or motivation in any of the cited references to alter Ahluwalia to produce a composite material according to the present claims. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *See In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); MPEP § 2143.01.

Accordingly, Applicants respectfully request withdrawal of the rejection of the claims under 35 U.S.C. §103(a) as obvious over Ahluwalia in view of Langer.

Conclusion

In view of the foregoing remarks, Applicants submit that the present invention is now in condition for allowance. Accordingly, favorable reconsideration of the application is earnestly solicited. Please send any further correspondence relating to this application to the undersigned attorney at the address below.

Applicants believe no fee is due in connection with this communication. However, should any fee be due in connection with this communication, the Commissioner is authorized to charge any such fee to Deposit Account No. 06-1205.

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PATENT APPLICATION

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



John D. Murnane
Registration No. 29,836

Alicia A. Russo
Registration No. 46,192
Attorneys for Applicants

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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